



AUG 15-19 2022

ENVIRONMENTAL SCIENCE AND ACTION-BASED LEARNING SUMMER TEACHER TRAINING

FACE-2-FACE, THE HIVE, HERBERT PARK, DUBLIN

Gain insights & skills in delivering outdoor environmental science education activities through action-and-inquiry-based learning.

This course is an exciting, practical, interactive and informative exploration of how to better understand, sustain, and improve Earth's environment at the local, regional and global scale using the internationally recognized GLOBE Programme.

You will learn how to guide your students through environmental observations, inquiries, data collection, analysis, and solutions-oriented projects and actions that benefit the environment. This aims to inspire your students to be change-agents for their local environment.

Each day the course focuses on different GLOBE themes and hands-on projects for the outdoor (and in-door) classroom. These activities will relate to the SDGs, upcoming GLOBE Ireland Campaigns, and environmental observation projects for the term of 2022/2023.

Over the 5-day course you will engage in action-and-inquiry-based environmental science projects, learn sensory engagement methods, and leave inspired with a host of tangible classroom projects and activities you can implement in your classroom over the next year, to not only improve your students' literacy and numeracy skills, but also increase their sense of curiosity and connection to their natural surroundings.

For more information, contact: globe@eeu.antaisce.org

REGISTER TODAY: <https://arccg.is/1SHDHL0>

DAILY SCHEDULE

Day 1: Intro to GLOBE

The Earth as a System, GLOBE resources, Inquiry-based learning, Action-based learning, Air quality observation intro

Day 2: Atmosphere Activities

Cloud & weather observations, urban heat-island effect, the water cycle, projects in the classroom

Day 3: Hydrosphere Activities

Observing rivers and streams as ecosystems, water quality assessment, projects in the classroom

Day 4: Biosphere Activities

Seasonal tree, plant and habitat observations, carbon-cycle, projects in the classroom

Day 5: From observation to actions that benefit the environment

Science communication, observation-to-action guidelines

KEY DETAILS

- ❖ €65 participation fee
- ❖ 3 EPV Days
- ❖ 9/9.30-14.30pm Mon-Fri
- ❖ Lunch included
- ❖ Max 25 participants (first-come-first-served)
- ❖ Fun, outdoor, hands-on learning activities
- ❖ Curriculum links: Geography, Literacy, Numeracy, Mathematics and more..
- ❖ Suitable for Primary and Secondary school teachers
- ❖ Accounts for differentiation in the classroom

DAILY LEARNING OUTCOMES

GLOBE- Environmental Science and Action-Based Learning Summer Teacher Training (August 15-19, 2022)

Daily Learning Outcomes:



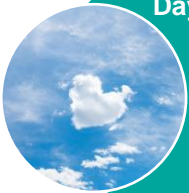
- 1) Learn how to strengthen the focus of **STEM** and **ESD** in your school through the GLOBE Programme.
- 2) Navigate the GLOBE website, the GLOBE Observer APP and GLOBE Visualization interface.
- 3) Learn how to use the scientific method to study nature around/in the school.
- 4) Apply different learning strategies to engage students with different abilities in understanding natural sciences including kinaesthetic, auditory, visual methods.

Day 1: Intro to GLOBE



- 1) Understand what GLOBE is, how it works & how the programme can benefit you and your students.
- 2) Understand how to apply inquiry-and-action-based learning principles to natural science classes.
- 3) Learn how to engage students in the atmosphere protocol on traffic-related air pollution measurements.
- 4) Articulate the challenges of traffic-related air pollutants (NO₂, PM) and incorporate air pollutant science experiments into the school community.

Day 2: Atmosphere Activities



- 1) Facilitate observations/experiments/measurements relating to the Atmosphere theme of GLOBE.
- 2) Learn how to teach students about cloud observations, satellites, and weather systems and how to record this using the GLOBE Observer APP.
- 3) Learn skills for recording data, analysing data, and developing projects around collected data
- 4) Incorporate this learning into the classroom setting.

Day 3: Hydrosphere Activities



- 1) Understand how to complete scientific waterbody and biodiversity observations.
- 2) Learn skills for recording data, analysing data, and developing projects around collected data using mathematics and written language assignments.
- 3) Engage in citizen science initiatives that work with water quality.
- 4) Incorporate this learning into the classroom setting.

Day 4: Biosphere Activities



- 1) Learn to engage students in GLOBE's Biosphere protocols through practical hands-on experiments relating to tree height, carbon content, and seasonal change observations.
- 2) Learn skills for recording data, analysing data, and developing projects around collected data.
- 3) Understand the intrinsic value of nature for children (increase in confidence, nature-connectedness, fitness, creativity and stress reduction).
- 4) Incorporate this learning into the school community.

Day 5: From Observation to Projects and Actions that Benefit The Environment



- 1) Learn to lead solutions-oriented projects to benefit the environment.
- 2) Gain familiarity with microplastics observations.
- 3) Learn to communicate the importance of environmental & human impacts to students accounting for climate anxiety.
- 4) Facilitate science communication through writing news articles, scientific posters, poems, verbal presentations and more..
- 5) Incorporate this learning into the school community.